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SOME OBSERVATIONS ON THE MARKETING  
OF FRUITS AND VEGETABLES IN THE SOVIET UNION

JUL 30 1965

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D & R:PREP.

I. INTRODUCTION

Although Soviet agriculture has been the subject of a steadily increasing amount of study in recent years, there are a number of significant areas which have received relatively little attention. One of the most important of these is marketing.<sup>1/</sup> There is, more particularly, only the most limited information available on the marketing of fruits and vegetables in the Soviet Union.<sup>2/</sup>

While greater knowledge of such a subject would, in the first instance, seem to be of most interest to students of the Soviet economy, it could well be of concern to the American fruit and vegetable industry. From time to time American growers, especially Florida citrus groups, have fondly considered the somewhat shadowy potential of the Russian market. With steadily increasing domestic fruit production - particularly of oranges, apples, and cherries - there may be further interest in the Russian market.

To gain some first-hand knowledge of fruit and vegetable marketing in the Soviet Union, I made a special attempt to observe present practices during a two and one-half week trip in August 1964. My tour was made as a regular tourist and not as part of a delegation. My view, therefore, was limited. I did, however, manage to visit farmers retail markets and State retail stores in six large cities: Moscow, Leningrad, Kiev, Volgograd (Stalingrad), Rostov-on-Don, and Sochi. The visits were supplemented by a trip to a State farm north of Rostov, and a review of what recent literature there is on the subject.<sup>3/</sup>

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1/Several U. S. Department of Agriculture technical study groups, however, have given some attention to grain and livestock marketing. An excellent overall view of the Soviet marketing system is provided by Marshall I. Goldman in Soviet Marketing, The Free Press, Glencoe, 1963, 229 pp.

2/For my own two previous papers on the Soviet fruit industry, I was able to find only scattered information on marketing. See International Fruit World (Basle): No. 3, 1959, p. 345 ff.; and No. 2, 1960, p. 317 ff. Also available in mimeograph form from my office.

3/I tried to make arrangements to visit a fruit and vegetable processing plant in Kiev but was informed that this could not be done as there was no plant closer than 60 miles - much of the production reportedly taking place in intercollective farm enterprises.



## II. GENERAL FRAMEWORK

The present Soviet marketing system for fruits and vegetables<sup>4/</sup> is a curious combination of public and private: both farmers markets and State stores are involved. The farmers markets represent the only bit of private enterprise left in the Soviet Union. They are located in cities and towns and are utilized by individual peasants.<sup>5/</sup> Some State stores are also located at these markets, but most are scattered around the city. The State outlets for the most part specialize in fresh produce, but also carry some processed items. Other more general State food stores also carry processed items but generally little, if any, fresh produce.

Physically, the outlets, of course, differed. The farmers markets consisted of a rather substantial main building equipped with stalls, surrounded by a large outdoor area also containing stalls. Some markets provided simple "hotel" accommodations for farmers who wished to stay overnight. The State produce stores were generally detached wooden structures or kiosks located around the edge of the public market or along the main street. Neither were self-service.

The supply and demand situation in these outlets will be considered separately for (1) fresh and (2) processed fruits and vegetables.

## III. FRESH

### A. Supply

The source of supply of fresh fruits and vegetables, as has been suggested, varies quite sharply. A substantial portion of the overall supply is produced on the small private plots of the individual collective and State farm workers.<sup>6/</sup> While these plots were ostensibly allocated to allow the peasant to grow food for his own use, much of their production, in fact, appears to pass over the public market.<sup>7/</sup> This in turn

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<sup>4/</sup>Potatoes, except where noted otherwise, are included within the vegetable category in this paper.

<sup>5/</sup>The operation of these markets has been well discussed by Jerry Karcz in "Quantitative Analysis of the Collective Farm Market," American Economic Review, June 1964, pp. 315-334. Also see Goldman, op. cit., pp. 45-48.

<sup>6/</sup>In 1959, the private sector produced 67% of the fruit (excluding grapes), 64% of the potatoes, and 46% of the other vegetables (A. N. Sakoff, "The Private Sector in Soviet Agriculture," Monthly Bulletin of Agricultural Economics and Statistics, September 1962, p. 5).

<sup>7/</sup>To date, my efforts to obtain a factual estimate of this proportion have been unsuccessful. In 1957, however, the proportion of total volume sold which passed over the farmers market was reported to be 63% for potatoes and 35% for other vegetables (Karcz, op. cit., p. 315).



provides a not-inconsiderable source of income for the individual.<sup>8/</sup> On the other hand, the produce sold by the State outlets generally comprises the "commercial" production of a collective or State farm. That is, it is produced as part of the farm's regular operations. Surplus farm production - or production above required delivery quotas - may also be sold on the farmers market.<sup>9/</sup>

In line with the rather different sources, the techniques of packing and transporting to market vary rather widely. As might be expected, the methods used by the individual peasants are not particularly advanced. As far as I could see, most produce was carried by hand in baskets, suitcases, or what have you. The peasants, in turn, would utilize public transportation or, in some cases, catch a ride on a farm conveyance. On seeing some fine pears on a Moscow market, a friend checked and found that they had been carried by their owner in a suitcase by air from Georgia. In Sochi I saw several cars parked on the market which had the back seat and trunk completely filled with apples; their owners were selling from the trunk. Produce sold by the State outlets had been roughly packed in unfinished field crates, and presumably was transported in more normal fashion. One set of refrigerated produce cars was seen. Some produce had been shipped in from Bulgaria in traditional flat crates.

Display techniques were definitely limited. In the farmers market, the peasants were provided a section of a bench type stall and a scale; the produce was then just laid out on the counter. No variety information was provided, and the price was almost never marked. In the State stores, the display was generally very simple and consisted only of stacking the fruit. There was no prepackaging. In several cases, potatoes and apples were just piled in bulk in a corner of the stand. On the other hand, in several State stands an inclined platform with a mirror was provided. For neither farm market nor State stands was refrigeration evident or were bags provided.<sup>10/</sup>

The selection of produce, on the whole, was much more limited than what is found in Western Europe and the United States during the same period. A considerably greater variety, however, was provided by the farm market than by the State outlets.<sup>11/</sup> The fruit selection was generally primarily made up of apples, pears, plums, and, in the southern areas, melons. More limited supplies of cherries, peaches,

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<sup>8/</sup>See Karcz, op. cit., p. 316, and Sakoff, op. cit., pp. 9, 11.

<sup>9/</sup>In recent years there has been increasing emphasis on specialized fruit and vegetable farms - the latter near the bigger cities, presumably because of transportation difficulties. However, nearly every farm raises some fruits and vegetables.

<sup>10/</sup>In Leningrad, however, I did see one stand using crude paper bags.

<sup>11/</sup>It should be kept in mind that this observation was made in season. Out of season, the situation might well be reversed. See Karcz, op. cit., p. 331.



apricots, grapes (in the south), and some small fruits were noted. No bananas or grapefruit were observed. Oranges were seen only in Kiev, and they were imported from the Mediterranean area;<sup>12/</sup> some of the peaches and grapes came from Bulgaria. The vegetable selection was surprisingly limited and seemed to consist mainly of potatoes, tomatoes, and cucumbers. There were some carrots, radishes, beets, peppers, eggplant, melons, onions, and very limited quantities of peas and cauliflower. Sweet corn was observed only in Rostov. I did not see any vegetables such as asparagus, lettuce, or celery.

The quality of the produce varied very widely but generally would be considered rather poor by American standards.<sup>13/</sup> Fruit particularly suffered by comparison - though the quality appeared to be considerably better in the more southern areas. Bruising was generally heavy, and some of the more culturally demanding fruits such as apples showed a great variety of insect and disease symptoms.<sup>14/</sup> On the other hand, some of the fruits which can take cultural neglect better, such as pears, did not fare too badly. Vegetable quality - particularly tomatoes - was generally more comparable to American standards. Size of all items, however, tended to be small.

It was not determined whether quality was higher in farm markets or in the State outlets. While the produce appeared to have been fresher in the market, that sold by the State stores may have been the product of a more systematic cultural program (that is, it was probably given a better spray program).<sup>15/</sup> In neither case, though, did there appear to be any evidence of a standardized grading program.

#### B. Demand

It is more difficult to assess the demand for fruits and vegetables. There did, however, seem to be a generally strong interest as evidenced by crowds and lines wherever produce was sold. To some extent, both

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<sup>12/</sup>The citrus area around Sochi suffered a severe freeze during the winter of 1963-64 (For background information on the citrus area of Georgia, a more southerly section, see Robert G. Jensen, "Soviet Subtropical Agriculture: A Microcosm," Geographical Review, April 1964, pp. 185-202). Also see fn. 20, p. 6.

<sup>13/</sup>This would be particularly true if quality were measured by official U. S. grade standards. These standards emphasize objective quality items such as freedom from bruising and insect and disease injury. They do not take into account the extremely subjective factor of flavor.

<sup>14/</sup>Apples, in fact, were easily the poorest quality of any of the fruits and vegetables available. While some fairly good specimens were seen, most would quickly go into the cull chute in America. August, of course, is early for apples, and later in the season less bruising might be expected on the harder fall varieties; there would be no reason, however, to expect insect and disease injury to be any less.

<sup>15/</sup>See Sakoff, op. cit., p. 5.



are characteristic of Soviet marketing,<sup>16/</sup> but they did appear to be more intense in the case of produce - particularly new shipments of above-average quality.

It is not clear whether demand was greater in the farm market or State stores. Each, however, had special characteristics which suggest a certain differentiation of demand. Consumers with ready access to the farm markets could find a wider assortment, possibly fresher produce, and could make their purchase without waiting in line. On the other hand, the State stores are found more widely scattered around the cities and they may be more convenient, despite a possible loss of freshness and the chance of having to wait in line. In either case, the quantity of purchase appeared to be limited to what the consumer could readily carry in a woven or net basket. At the Sochi market (a leading resort in the south of the country) wooden shipping cartons were sold; these were used by what looked like a goodly number of people to ship fresh fruit home.

Demand by individual families in urban areas is probably tempered by the fact that the big meal of the day, lunch, is eaten at the factory. And since there is a six-day work week, this accounts for a large share of the food intake - particularly when it is considered that the wife also usually works and the children are in schools or nurseries.

Another tempering factor is, of course, home production. Wherever a family had a plot of land, it appeared to be covered with fruit and vegetable plantings. As there aren't too many private plots in the cities, this was less important there than in the suburbs and in the rural districts where home plantings appeared to be very intensive.

#### C. Prices<sup>17/</sup>

Assessment of average going prices was difficult. This was in part due to the wide variations in quality, and to the lack of price marking, particularly in the public market. Furthermore, there appeared to be a not-inconsequential variation by region.

Perhaps, though, it would be fair to say that prices appeared to be higher than in the United States - especially when the differences in quality are taken into consideration. The price differential was more marked for fruits than it was for vegetables: it was most evident for

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<sup>16/</sup>The average Soviet housewife must spend a great deal waiting in lines in the State stores - first to buy a ticket corresponding to the amount of her purchase, and then to stand in line to actually get the product. This is a rather strange failing in a country which otherwise seems to be quite conscious of the use of time.

<sup>17/</sup>The price-making process on the farm market is discussed by Karcz, op. cit., pp. 327-332. He suggests that prices ". . . tend to be affected much more by fluctuations in supply than by those in demand" (p. 331).



the more tender fruits such as apples and peaches, and least evident for tomatoes and potatoes.<sup>18/</sup>

I was unable to detect whether there was any significant difference between prices in the farm market and in the State stores. It was my impression, however, that the farm market prices tended to be higher than State prices.<sup>19/</sup> According to my guide in Kiev, the farm market prices tended to vary more than did those in the State stores - rising higher in periods of short supply, and dropping more in periods of heavy supply.

Be this as it may, I did collect some State prices which may be of interest (Table 1). They were acquired from several stores in Leningrad, and appeared to be slightly higher than in the other cities (Leningrad being more remote from the specialized production areas than, say, Kiev). Within the city, there was little variation from store to store.

Table 1. Fresh Fruit Prices in Selected State Stores, Leningrad, August 1964

Commodity	Price Per Pound*	Quality
Apples**	\$0.25	fair
	0.13	poor
Pears***	0.50	good
Plums	0.35	variable
Peaches	0.70	fair (from Bulgaria)
Grapes	0.40	fair (from Bulgaria)
Tomatoes	0.20	good

\*Converted from rubles per kilogram: 1 ruble = \$1.1111, 1 kilogram = 2.2046 lb.

\*\*Prices in Kiev varied from \$.10 to .15/lb.

\*\*\*Kiev prices averaged \$.20/lb.

Oranges - as indicated - were seen only in Kiev and averaged \$0.70/lb.<sup>20/</sup>

If the prices in the farm market on average are comparable to or higher than this schedule, it would at first seem that the peasants would do quite well on the market. And while the available evidence suggests

<sup>18/</sup>As Russia produces a much greater quantity of potatoes than the U. S. (See Table 3, p. 12), prices later in the season - when production reaches a peak - could well be less than in the U. S.

<sup>19/</sup>Goldman reports that food prices in the farm markets are generally above those in State stores (op. cit., pp. 48, 89.). Karcz, however, suggests that this is more apt to be true in the large cities than in smaller towns (op. cit., pp. 329-331).

<sup>20/</sup>Mediterranean oranges, however, were reported to be readily available in Moscow during the 1963-64 crop year for about \$0.50/lb. Bananas of fair quality brought about \$0.55/lb. in September and October.



that the market is an important outside source of income, the amount may not be as great as might be expected because of: (1) the amount of time and money that must be spent in traveling to and from the market and in selling the product (rental fees for stalls were not obtained<sup>21</sup>); (2) the relatively small quantity of product involved - generally limited to what can be carried by hand.

#### IV. PROCESSED

The marketing of processed fruits and vegetables, unlike the situation existing for fresh fruit, is a monopoly of the State. All processed products are sold through State outlets.

##### A. Supply

The most striking fact about the supply of processed products - particularly as compared to the United States - is that it was very limited. Only a few fruits and vegetables were available in processed form, and then only in certain types of packs.

Processing of fruit appeared to be mainly confined to jams, purees, compotes, marmelades, and the like. For these items, a relatively wide variety was available. Relatively little whole fruit was to be found; the usual selection was generally confined to plums or prunes, cherries (unpitted), and pears. Some dried fruit was sold. Most of the processed pack was put in glass; what little there was in cans (principally pears) came from Bulgaria or Hungary. The quality of the few samples tasted appeared to approach that of U. S. packs.

On the whole there appeared to be very little fruit juice available. What there was, was either sold in: (1) glass bottles in canned fruit stores (which were observed only in Moscow and Kiev<sup>22</sup>); from (2) glass cone dispensing devices holding a gallon or so which were found in some of the stores;<sup>23</sup> and (3) in a few instances from vending machines (in Kiev). The most common juices appeared to be tomato and apple, with some cherry, apricot, and grape. Orange and cranberry were not seen but understood to be available in Moscow. My own evaluation of the juices tasted would be that they were of average or less quality and tended to suffer from a mustiness of flavor; the apple juice was somewhat more tart than we are used to and definitely not as fresh. A disconcerting feature of buying a glass of juice from a counter or a machine was that

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<sup>21</sup>/The stalls, in Kiev at least, are usually rented for one to two days (Soviet Agriculture Today, Report of the 1963 Exchange Delegation, U. S. Department of Agriculture, Agricultural Economic Report No. 13, December 1963, p. 55).

<sup>22</sup>/Apple juice, however, was fairly widely distributed in State stores in Kiev and Leningrad.

<sup>23</sup>/The cones in turn are filled from regular glass bottles which are kept behind the counter. They are unrefrigerated.



the same glass is used by every customer and only lightly rinsed on the inside. Fruit-flavored sodas were widely sold, but would seem to use a very small quantity of actual fruit juice. Concentrated fruit syrups were generally available. A wide range of wines was also available, some of them quite good (particularly the Georgian).

Canned vegetables appeared to be in even more limited supply than processed fruits. About the only canned whole vegetables I saw were some tinned peas and a few beans - and these were imported from Poland, Hungary and Bulgaria. The Russian packs seemed to be mainly limited to such things as tomato paste, cucumbers, eggplant, and a number of mixed relishes, sauces, and the like.

B. Demand

The demand for what processed fruits and vegetables were available did not appear to be strong.<sup>24</sup> In fact, I never did see anyone buying any of the canned items. Most of them seemed to be used for rather dusty window displays. Perhaps their sales pick up in the winter when a smaller selection of fresh produce is available.

C. Price

Probably a good deal of the apparent low demand is associated with price - which, on the whole, appeared to be high. Again, comparisons are difficult because of the differences in the selection available, but the average seemed to be considerably above U. S. levels. Specific prices in several stores in Leningrad and Kiev appeared to run as indicated in Table 2 (page 9).

It will be noted that prices tended to be higher in Leningrad than in Kiev. This would be expected for the reasons indicated earlier. It was understood that at least some glass containers could be returned for a refund. The absence of citrus products was notable.

As alternative sources are not available, processed prices - which are fixed by the government - may well be less responsive to supply and demand than is the case for fresh produce.

V. INSTITUTIONAL USE

In terms of the restaurant meals provided tourists, I can report that we were rather well supplied with fresh tomatoes, cucumbers, and potatoes. Fresh fruits - as in American restaurants - were not readily available, and when obtained consisted of a bowl of rather poor apples, or of grapes or apricots of more intermediate quality. No fresh or canned fruit cup or other fruits appeared to be available.<sup>25</sup>

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<sup>24</sup>/Even allowing for the fact that there is generally less use of processed fruits and vegetables in Europe than in the United States.

<sup>25</sup>/One exception was a rather good fruit "compote" which was available in several places. It consisted of a fruit juice with a few plums or sour cherries residing at the bottom of the bowl or glass.



Table 2. Processed Fruit and Vegetable Prices in Selected State Stores, Leningrad and Kiev, August 1964

<u>Pack</u>	<u>Commodity</u>	<u>Unit*</u>	<u>Price Per Unit*</u>	
			Leningrad	Kiev
Whole Fruit	Apples	2.07 lb.	\$0.79	\$1.09
	"	1.08	0.53	--
	Plums	1.87	1.04	0.89
	"	1.20	0.69	0.63
	Cherries	1.43	1.12	1.12
	Quinces	1.43	1.10	--
Whole Vegetables (imported)	Peas	0.53 qts.	\$1.37	--
	Beans	1.06 qts.	1.54	--
	(string)	0.79 lb.	0.28	0.30
Jams, etc.	Apple	1.43 lb.	\$1.07	\$0.91
	Pear	"	1.31	--
	Cherry	"	1.52	1.12
	Plum	"	1.18	0.88
	Peach	"	0.92	--
	Apricot	"	0.92	0.77
	Raspberry	"	1.02	1.12
	Strawberry	"	1.24	--
	Quince	"	--	0.91
Juice	Apple	1.06 qts.	\$1.11	\$0.92
	"	0.53 qts.	0.61	0.58
	Cherry	"	--	0.70
	Apricot	"	--	0.49
	Grape	"	0.68	0.61
	Tomato	"	0.44	0.47

\*Conversions on the basis of: 1 kilogram = 2.2046 lb.;  
1 liter = 1.06 qts.; and 1 ruble = \$1.1111.

As I have indicated, a sizeable portion of the food take of the urban dweller is obtained through his place of work. Just how much use factories make of fruits and vegetables in their meals is not known.<sup>26</sup> However, it seems likely that the diet is also much longer on vegetables - particularly potatoes - than on fruit.

<sup>26</sup>One Soviet paper states, however, that vegetables are very little used in "public catering" (see fn. 27). In some cases the factory maintains its own farm plots (Goldman, op. cit., pp. 15-16).

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## VI. THE SOVIET VIEW

In order to add perspective to my admittedly limited observations, it would seem well to consider Soviet impressions of the present system. One way of doing this is to review the current Soviet press. Such a survey suggests little rapture for existing practices.

Curiously, this displeasure seems to arise mostly from the State side of the marketing system. For although the government has been trying to increase the portion of fruits and vegetables supplied by the State, it seems to be thwarted by the marketing process. As one leading paper put it, "A great hinderance . . . is the disorder in procurements, transportation, storage and sale of these products." The disorder seems to be due to both organizational and physical shortcomings. Organizationally, there is felt to be too much of a gap between those producing and those marketing the crop. Physically, there seem to be shortages of machinery, materials, storage and processing at every step of the way.<sup>27</sup>

Consequently, a significant portion of what produce does manage to start its way through the system is either lost to spoilage or has its quality seriously impaired. It was reported, for instance, that in 1962 "... 12.3 percent of the total shipments of vegetables spoiled in the trade organizations of Moscow and Leningrad." Moreover, much of what was marketed was stated to be "unsuitable for consumption." Even Premier Khrushchev has been led to admit that "the assortment of vegetables is inadequate" and that "the quality of the vegetables is still low."<sup>28</sup>

From these and other comments<sup>29</sup>/it may be seen that there is at least recognition of severe problems in the marketing of fruits and vegetables. There is, however, less explicit indication that anything is actually being done - and not just planned - to correct the situation.

## VII. IMPLICATIONS FOR THE U. S.

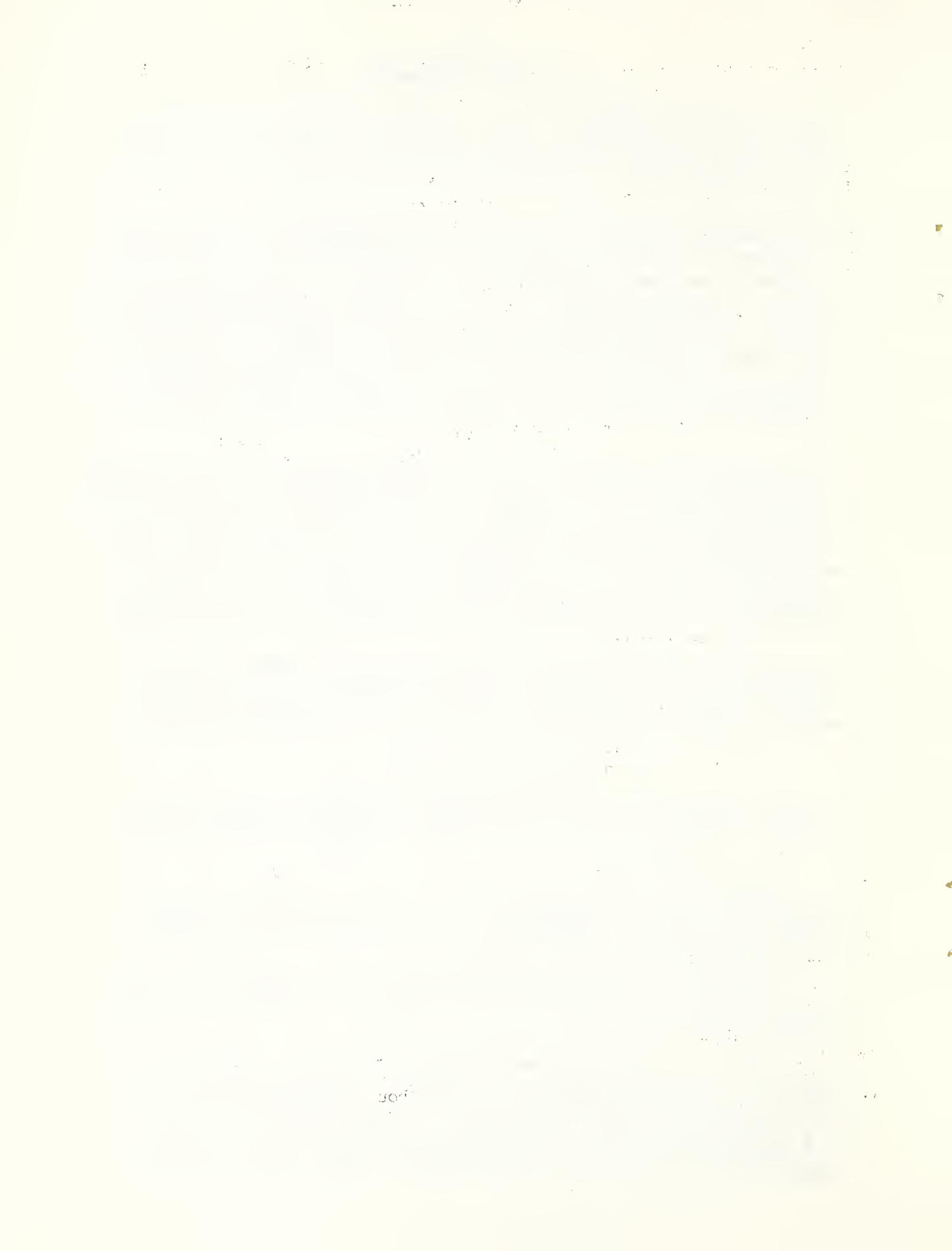
In such a setting, is there much prospect for Western produce finding a home? Considering the quantity, quality, and price of much of the

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<sup>27</sup>/M. Alisov, "Important Problems of the Production and Sale of Agricultural Products," Kommunist, No. 15, October 1963, pp. 88-95 (Current Digest of the Soviet Press, Jan. 15, 1964, pp. 19-21).

<sup>28</sup>/Ibid.; N. S. Khrushchev, "Intensification of Production Direction in the Development of Agriculture," Pravda, February 15, 1964, pp. 1-6 (CDSP, March 11, p. 13).

<sup>29</sup>/See, for instance; "Bring Order into Storage of Vegetables" (editorial), Izvestia, September 6, 1963, p. 1 (CDSP, Oct. 2, pp. 28-29); L. I. Maximov, "Make Fuller Use of Potentials of Collective and State Farms of the Russian Federation," Pravda, February 11, 1964, p. 7 (CDSP, March 25, p. 14); and "Once More About Fresh Vegetables," Pravda, June 22, 1964, p. 2 (CDSP, July 15, p. 26).



Russian produce now available, it might seem that imports from the U. S. should be able to compete. This would appear to be particularly true for fresh and processed citrus (of which the Soviet Union produces very little), apples, and some other deciduous fruits. There are, however, a number of reasons which are apt to limit the development of any such market.

First, Russia is in the midst of a vast program to increase deciduous fruit and vegetable production on the State and collective farms. I discussed this program with respect to fruit in two papers published several years ago;<sup>30/</sup> evidence of the new plantings is to be widely seen, particularly around Rostov and Kiev. Assuming favorable climatic conditions, it would seem that their production plans stand some chance of succeeding. The big question, in my mind, is whether they can adequately market the anticipated production.

Second, it should be recognized that any importation of fruits and vegetables is done by the government, and the product is sold only through State stores. The government essentially fixes the retail price and takes whatever profit there is. At present, imports are limited to some produce from other Iron Curtain countries, and to some citrus from the Mediterranean area.<sup>31/</sup> Whether the Soviet government would care to use its limited foreign exchange to purchase other Western produce is quite doubtful.<sup>32/</sup>

But if more Western fresh fruit were imported, there would be a serious question of how well it would stand up in the present rather antiquated marketing channels. The lack of adequate, fast, refrigerated produce transport and of storage facilities would very likely tend to quickly reduce Western produce to a level comparable to that of Russian products. And the quality certainly would not be enhanced by present retail techniques.

These quality factors, of course, would be less of a problem for canned products - but, as indicated, the demand situation clearly would have

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30/Dalrymple, op. cit. (1959, 1960).

31/For instance, during 1960 and 1961: (1) over 32% of the apple imports came from Mainland China alone; while (2) about 60% of the citrus came from Greece, Morocco, and Italy, and nearly 17% from China. (Computed from data provided in the following FAO publications: Trade Yearbook, 1962, pp. 113, 115, 121; and the Monthly Bulletin . . ., Jan. 1964, pp. 15, 16).

32/For a more complete discussion of Soviet trade practices and patterns, see Theodora Mills: Soviet Agricultural Trade 1955-61, U. S. Department of Agriculture, Economic Research Service, ERS-Foreign-47, June 1963, p. 20; and "East-West Agricultural Trade," Farmer's World (The Yearbook of Agriculture), 1964, pp. 338-345. Also, "Farm Trade with the Soviet Bloc," Looking Ahead, National Planning Association, September 1964, pp. 1-4, 6-8 ("An Agriculture Committee Statement and a Report").



to be changed if there were to be much of a potential for them. And certainly at present there is no potential for frozen products because of lack of refrigeration. Furthermore, markets would probably have to be developed for many fruits and vegetables with which the Soviet citizen is not acquainted.

All told, then, there appears to be a very limited opportunity for U. S. exports of fruits and vegetables - except possibly for fresh citrus - to the Soviet Union. And in the case of citrus, the U. S. would probably face stiff price competition from the Mediterranean area because of distance to the market.

### VIII. APPENDIX

Table 3. Fruit and Vegetable Production in the Soviet Union and the United States, 1962

Crop	Production (thousands of tons)	
	Soviet Union	United States
All Fruits	6,590*	16,851**
Citrus	NA	6,478
Grapes	3,276	3,239
Tree Nuts	NA	205
Other Fruits	3,314*	6,929
Vegetables	17,637	20,075
Potatoes	68,232	14,303
Irish	68,232	13,335
Sweet	NA	968

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Notes:

NA = Not Available.

\*This figure presumably includes what little production there is of citrus and nuts.

\*\*This figure refers to commercial production of the 20 most important fruits. Data on berry production is incomplete. 1962-63 crop year for citrus.

Source:

Annual Economic Indicators for the U. S. S. R., Congress of the United States, Joint Economic Committee, February 1964, p. 31. The Soviet figures were reported obtained from Narodnoe Khozyaistvo SSR, 1962, except for the potato figure which is a USDA estimate. The U. S. figures were reported obtained from Crop Production, 1963 Annual Summary (contains revised estimates for 1962).

